**Application No.: 10/814,342** 

## REMARKS

## I. <u>Introduction</u>

In response to the pending Office Action, Applicants have incorporated claim 3 into claim 1 and added new claims 8, 9, 10 and 11 to further clarify the intended subject matter of the invention. The subject matter of new claim 8 is supported by original claims 1 and 4. Claims 9, 10 and 11 are dependent upon new claim 8 and correspond to claims 2, 6 and 7. Claims 3 and 5 have been cancelled, without prejudice. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims are patentable over the cited prior art.

## II. Rejection Of Claims 1-7 Under 35 U.S.C. § 102/103

Claims 1-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by Helms et al. (USP No. 5,100,523). Also, claims 1-7 were rejected under 35 U.S.C. § 102(b) as being anticipated by or alternatively under 35 U.S.C. § 103 as being unpatentable over Helms et al. (USP No. 5,186,813). Applicants respectfully submit that Helms fails to anticipate or render obvious the pending claims for at least the following reasons.

With regard to the present invention, amended claim 1 recites an electrode for an electrochemical device, comprising an organic compound that serves as an active material and a substrate carrying said organic compound, wherein said substrate and said organic compound are bonded by a covalent bond, wherein said organic compound has a thiol group in the molecule thereof.

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It is alleged that the limitations of amended claim 1 (containing the limitations of original claim 3) are disclosed in Helms because Helms '523 teaches in col. 5, lines 3-12 that the electroactive polymer may be produced from a monomer of thiophene or 3-methylthiophene.

However, amended claim 1 recites the limitation "wherein said organic compound has a thiol group in the molecule thereof." As thiophene and 3-methylthiophene do not contain thiol groups, Helms does not teach or suggest the above cited limitation of amended claim 1.

Anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently in a prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986). Also, in order to establish a *prima facie* case of obviousness, each and every limitation must be disclosed or suggested by the combination of the prior art references (see, M.P.E.P. § 2143.03). Helms does not disclose an electrochemical device, comprising an organic compound that serves as an active material and a substrate carrying said organic compound, wherein said substrate and said organic compound are bonded by a covalent bond, wherein said organic compound has a thiol group in the molecule thereof. Therefore, as it is apparent from the foregoing that Helms fails to anticipate or render obvious claim 1 of the present invention, Applicants respectfully request that the § 102 and § 103 rejections of claim 1 be traversed.

## III. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons

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set forth above, it is respectfully submitted that all pending dependent claims are also in

condition for allowance.

Furthermore, new claim 8 recites the feature wherein said organic compound has a free

radical in the molecule thereof. As Helms appears silent with regard to this feature, and as the

Office Action has provided no indication as to how the cited prior art discloses this feature

(which was in original claim 4), Applicants respectfully submit that new claim 8 is allowable

over the cited prior art. New claims 9, 10 and 11 depend upon new claim 8.

IV. Conclusion

Having fully responded to all matters raised in the Office Action, Applicants submit that

all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is

hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to

such deposit account.

Respectfully submitted,

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